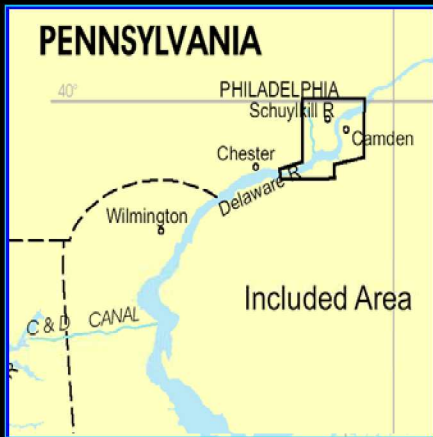


# BookletChart<sup>TM</sup>

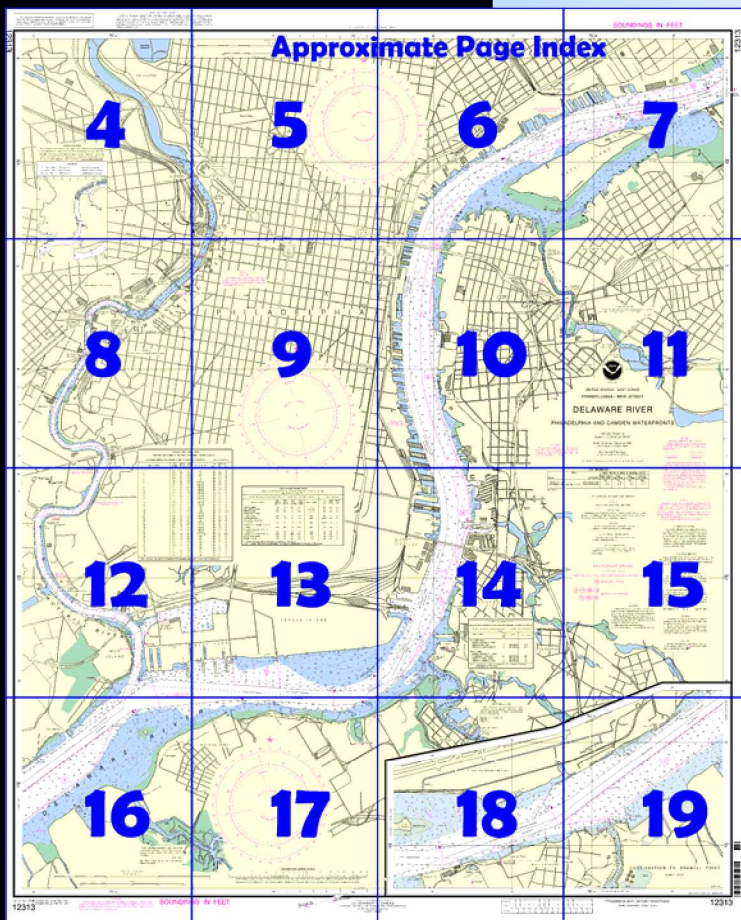
## Philadelphia and Camden Waterfronts

(NOAA Chart 12313)



A reduced scale NOAA nautical chart for small boaters. When possible, use the full size NOAA chart for navigation.

- ✓ Complete, reduced scale nautical chart
- ✓ Print at home for free
- ✓ Convenient size
- ✓ Up to date with all Notices to Mariners
- ✓ United States Coast Pilot excerpts
- ✓ Compiled by NOAA, the nation's chartmaker.



Home Edition (not for sale)





### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

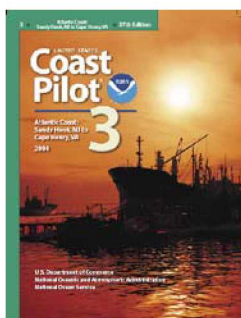
This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.



#### **[Coast Pilot 3, Chapter 6 excerpts]**

(319) A Federal project provides for a channel 40 feet deep from the sea through the main channel in Delaware Bay and River to the Philadelphia Naval Shipyard, thence 40 feet on the west side and 37 feet on the east side through Philadelphia Harbor to Allegheny Avenue; thence 40 feet to the U.S. Steel basin opposite Newbold Island; thence 25 feet to the Trenton Marine Terminal.

(320) In the Philadelphia-Trenton section of the river, masters are requested to limit speed

when passing wharves and piers so as to avoid damage by suction or wave wash to property or persons.

(322) **Walt Whitman Bridge** connecting Philadelphia with Gloucester City has a clearance of 139 feet under the full width of the main span.

**Benjamin Franklin Bridge**, 0.3 mile above Chestnut Street, has a clearance of 135 feet for the middle 800 feet of the span and 128 feet

under the rest of the span.

(328) The wind direction for the summer is from the southwest, while northwesterly winds prevail during the winter. The annual prevailing direction is from the west-southwest. Destructive velocities are comparatively rare and occur mostly in gusts during summer thunderstorms. Only rarely have hurricanes in the vicinity caused widespread damage, then primarily through flooding.

(329) Flood stages in the Schuylkill River normally occur twice a year. Flood stages seldom last over 12 hours and occur after excessive falls of precipitation during summer thunderstorms. Flood stages in the Delaware River are caused by abnormally high tides due to the water "backing up" under the strong south or southeast winds.

(359) Repairs to small vessels can be made at shipyards on Cooper Point in Camden. Small-craft repair facilities are at Dredge Harbor, N.J., and Essington, Pa.

(361) **Schuylkill River**, is navigable for 7.3 miles to **Fairmount Dam**, Fairmount and is an important outlet for a part of the commerce of Philadelphia.

(362) The Federal project provides for a channel 33 feet deep to Passyunk Avenue bridge, thence 26 feet deep to Gibson Point, thence 22 feet deep to University Avenue bridge. Above that point most of the wharves have depths of about 12 feet at their faces.

(363) A light marks the outer end of a sunken jetty on the east side of the entrance to Schuylkill River and a fog signal is on the west side. A **021°30'** lighted range marks the entrance, and buoys mark the channel within the river as far as the railroad bridge.

(364) Schuylkill River is crossed by six bridges; Interstate 95 at Girard Point and the George C. Platt Memorial highway (Penrose Avenue) bridges, 0.6 mile and 1.3 miles, respectively, above the mouth, have clearances of 135 feet. The highway bridge 4.8 miles above the entrance has a clearance of 50 feet. The others, all drawbridges, have a minimum clearance of 15 feet. The bridgetender of the railroad swing bridge, 4.3 miles above the mouth, monitors VHF-FM channel 13; call sign KXS-238.

(365) Above the University Avenue bridge, the limiting clearance of the fixed bridges is 16 feet. The railroad bridge, 5.6 miles above the mouth, has a swing span with a clearance of 26 feet.

(366) The Passyunk Avenue bridge, 3.5 miles above the entrance has a clearance of 50 feet.

(370) **League Island** at the junction of Delaware and Schuylkill Rivers is the site of the **Philadelphia Naval Shipyard. Reserve Basin**, in the northwest part of the reservation, is used to store vessels of the reserve fleet.

(372) **Big Timber Creek**, has a dredged entrance channel centerline controlling depth of 5 feet through the buoyed flats at the entrance, thence 7 feet at centerline to the bridge at Westville. Local knowledge is needed to navigate beyond the buoys. The clearance of the fixed bridges at **Westville** is 14 feet. Above Westville, the fixed bridges have a least vertical clearance of 8 feet. The overhead cables crossing the creek have a least clearance of 30 feet.

(373) The oil and chemical barge wharves on the northeast side of the entrance to Big Timber Creek have depths of about 12 feet at their faces. Above here, the creek is little used except by pleasure craft. Several marinas are along the creek; slips, gasoline, and marine supplies are available.

(380) **Newton Creek** is blocked 500 yards above the mouth by low fixed bridges.

(397) **Back Channel** between **Petty Island** and the New Jersey shore has a controlling depth of 10 feet; both entrances are buoyed, but avoid the foul ground extending from both shores. The railroad-highway bridge over the northeastern end of Back Channel has a fixed span with a clearance of 15 feet. Most of the boatyards along the New Jersey shore southward of Petty Island are inactive.

# Table of Selected Chart Notes

Corrected through NM Dec. 20/08  
Corrected through LNM Dec. 9/08

## HEIGHTS

Heights in feet above Mean High Water.

## NOTE B

Depths refer to Schuylkill River Datum.

Mercator Projection  
Scale 1:15,000 at Lat. 39°55'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.463" northward and 1.350" eastward to agree with this chart.

For Symbols and Abbreviations see Chart No. 1

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Philadelphia, PA KIH-28 162.475 MHz

## COOPER RIVER

The controlling centerline depth at mean lower low water was 6 feet to the upstream limit of the project.

Jun 1980

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

## CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

## SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important supplemental information.

## CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.


Station positions are shown thus:  
○ (Accurate location) ◐ (Approximate location)

## CAUTION

### BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

## CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus: 

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.

Refer to charted regulation section numbers.

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

## SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, [United States Coast Pilot](#).

## AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, U.S. Coast Guard, and National Geospatial-Intelligence Agency.

## CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

## ANCHORAGE AREAS

110.157 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

10 NAVAL ANCHORAGE

9 11 12 13

GENERAL ANCHORAGES

14 15 16

## TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Billingsport, NJ	(39°51'N/75°15'W)	6.2	5.8	0.2
Philadelphia, Municipal Pier 11, PA	(39°57'N/75°08'W)	6.8	6.4	0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Dec 2008)

## SCHUYLKILL RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAR 2009

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT SCHUYLKILL RIVER DATUM					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
1	27.5	32.4	33.9	3-09	400	0.32	33
2	24.5	31.0	29.6	3-09	400	0.34	33
3	31.4	31.8	28.5	3-09	400	0.18	33
4	29.0	32.1	29.6	3-09	400	0.11	33
5	28.1	33.2	31.9	3-09	300	0.30	33
6	26.8	31.7	27.2	3-09	325	0.21	33
7	31.0	30.7	24.1	3-09	300	0.31	33
8	29.4	31.8	19.9	3-09	300	0.15	33
9	31.4	32.1	29.7	3-09	300	0.31	33
10	32.1	34.3	30.7	3-09	325	0.09	33
11	28.7	33.1	35.0	3-09	350	0.05	33
12	25.4	32.4	33.6	3-09	350	0.05	33
13	26.3	21.7	33.1	3-09	325	0.07	33
14	23.5	30.9	33.5	3-09	300	0.14	33
15	26.2	32.8	32.1	3-09	325	0.06	33
16	25.3	30.8	26.3	3-09	350	0.06	33
17	27.4	32.7	27.5	3-09	325	0.06	33
18*	30.7	31.3	28.0	3-09	300	0.31	33
19	10.5	23.8	31.1	3-09	300	0.14	33
19	11.0	17.1	27.3	3-09	200	0.04	33
19	16.9	28.0	27.9	3-09	200	0.04	26
20	20.3	26.1	21.1	3-09	250	0.05	26
21	25.1	20.3	10.4	3-09	250	0.04	26
22	19.7	14.8	9.7	3-09	250	0.06	26
23	19.3	7.1	1.0	3-09	200	0.21	26
24	25.8	14.6	3.8	3-09	250	0.06	26
25	26.9	16.0	8.5	3-09	250	0.09	26
26	26.2	15.5	11.8	3-09	250	0.09	26
27	25.3	16.2	11.6	3-09	225	0.12	26
28	19.0	15.7	12.6	3-09	200	0.10	26
29	14.7	15.4	14.0	3-09	200	0.07	26
30	15.7	16.8	17.5	3-09	200	0.30	22
31	21.0	12.8	16.7	3-09	200	0.10	22
32	21.7	15.9	11.7	3-09	200	0.26	22
33	22.6	11.8	8.2	3-09	200	0.10	22
34	20.2	16.1	12.3	3-09	250	0.07	22
35	22.2	15.5	12.0	3-09	250	0.06	22
36	19.2	15.4	12.1	3-09	250	0.06	22
37	20.1	19.7	19.4	3-09	250	0.06	22
38	14.2	15.4	16.2	3-09	225	0.13	22

\* TO UPPER END OF BERTH NO. 1, ARCO BALLAST WHARF.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

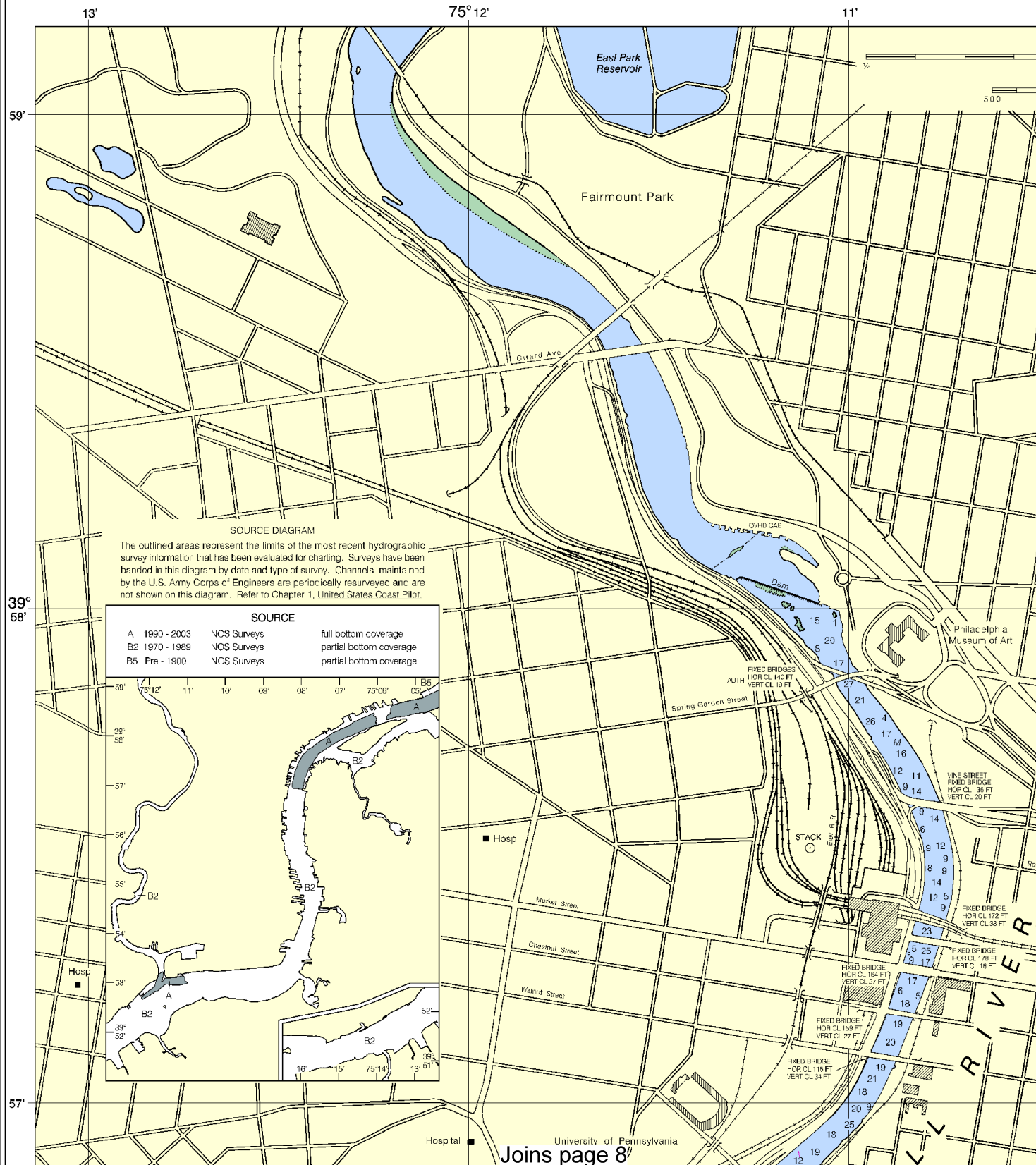


# PRINT-ON-DEMAND CHARTS

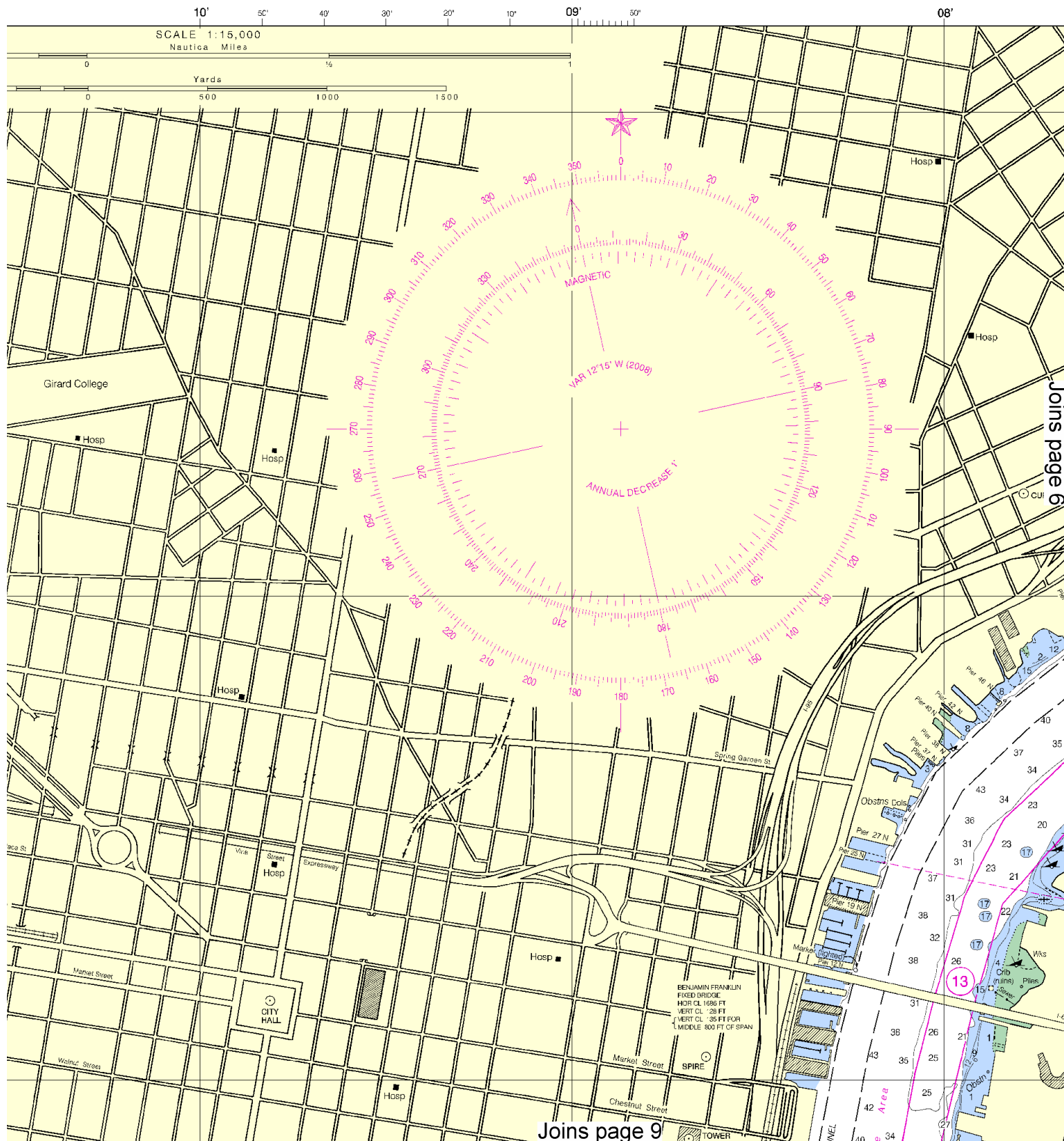
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, [help@NauticalCharts.gov](mailto:help@NauticalCharts.gov), or [help@OceanGrafix.com](mailto:help@OceanGrafix.com).

12313





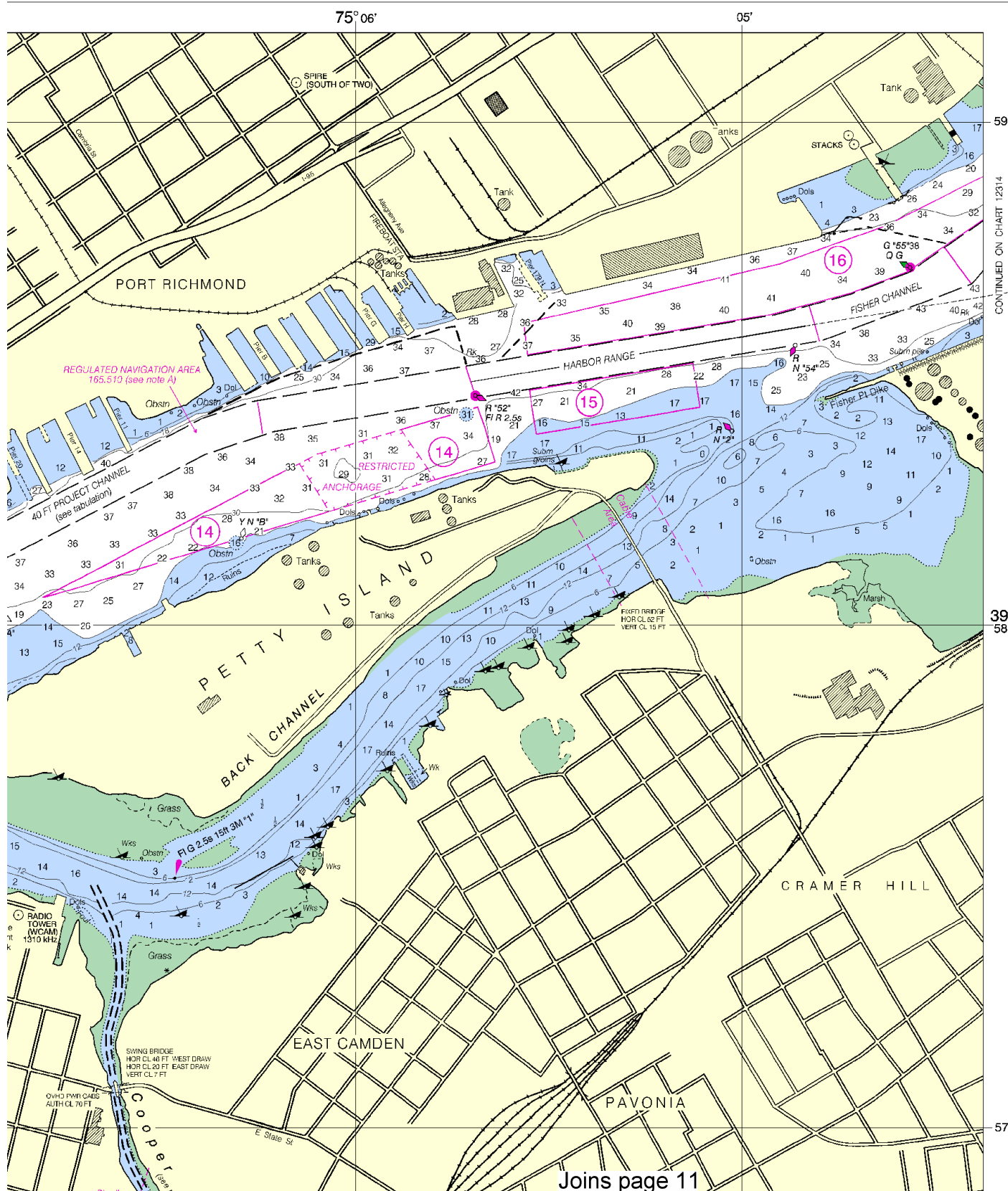


This BookletChart was reduced to 75% of the original chart scale.  
The new scale is 1:20000. Barscales have also been reduced and  
are accurate when used to measure distances in this BookletChart.

Joins page 10



# SOUNDINGS IN FEET



12313

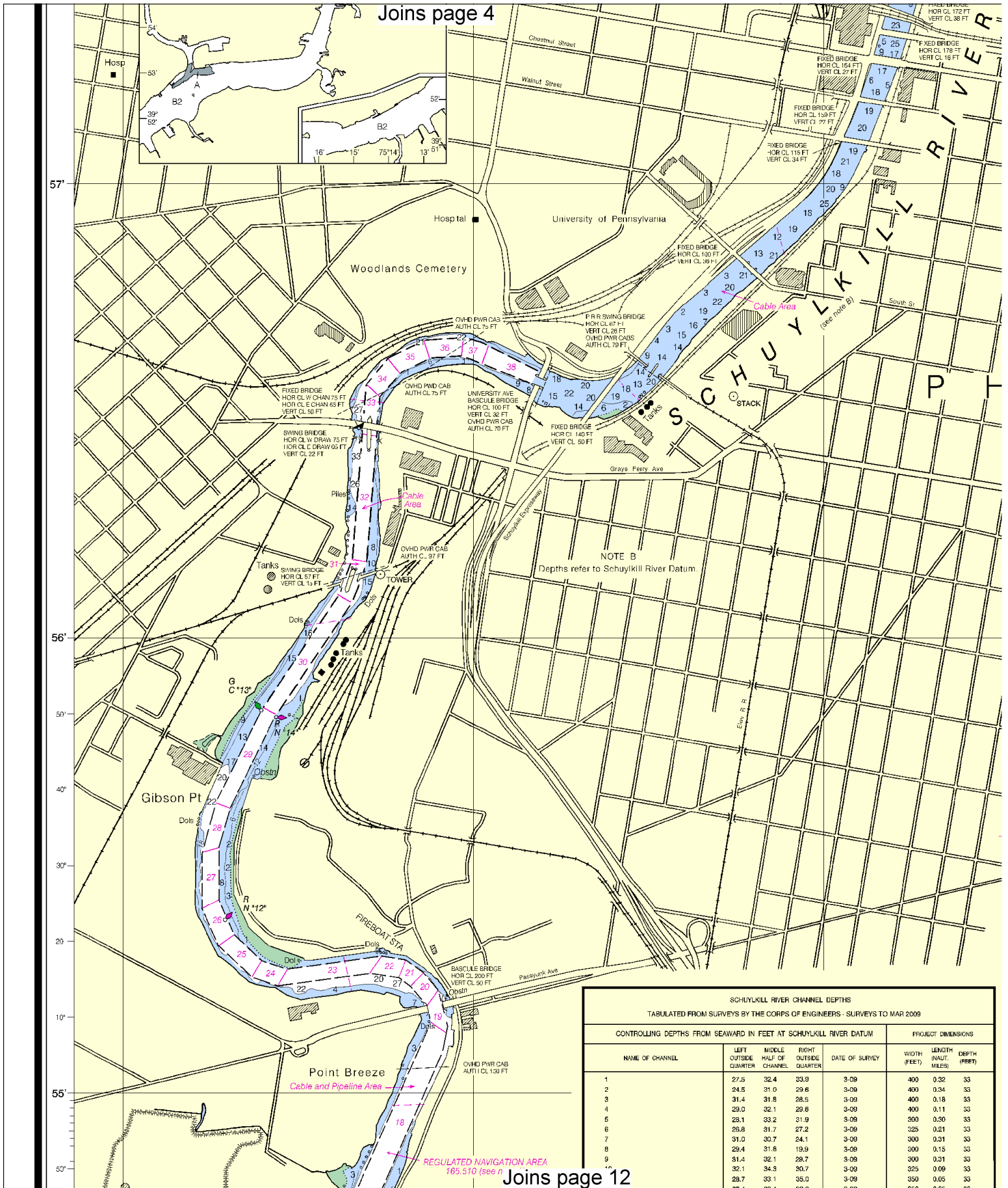
CONTINUED ON CHART 12314

Joins page 11

This BookletChart has been updated with: Coast Guard Local Notice To Mariners: 0810 2/23/2010,  
 NGA Weekly Notice to Mariners: 1010 3/6/2010,  
 Canadian Coast Guard Notice to Mariners: n/a .



Joins page 4



Joins page 12

8



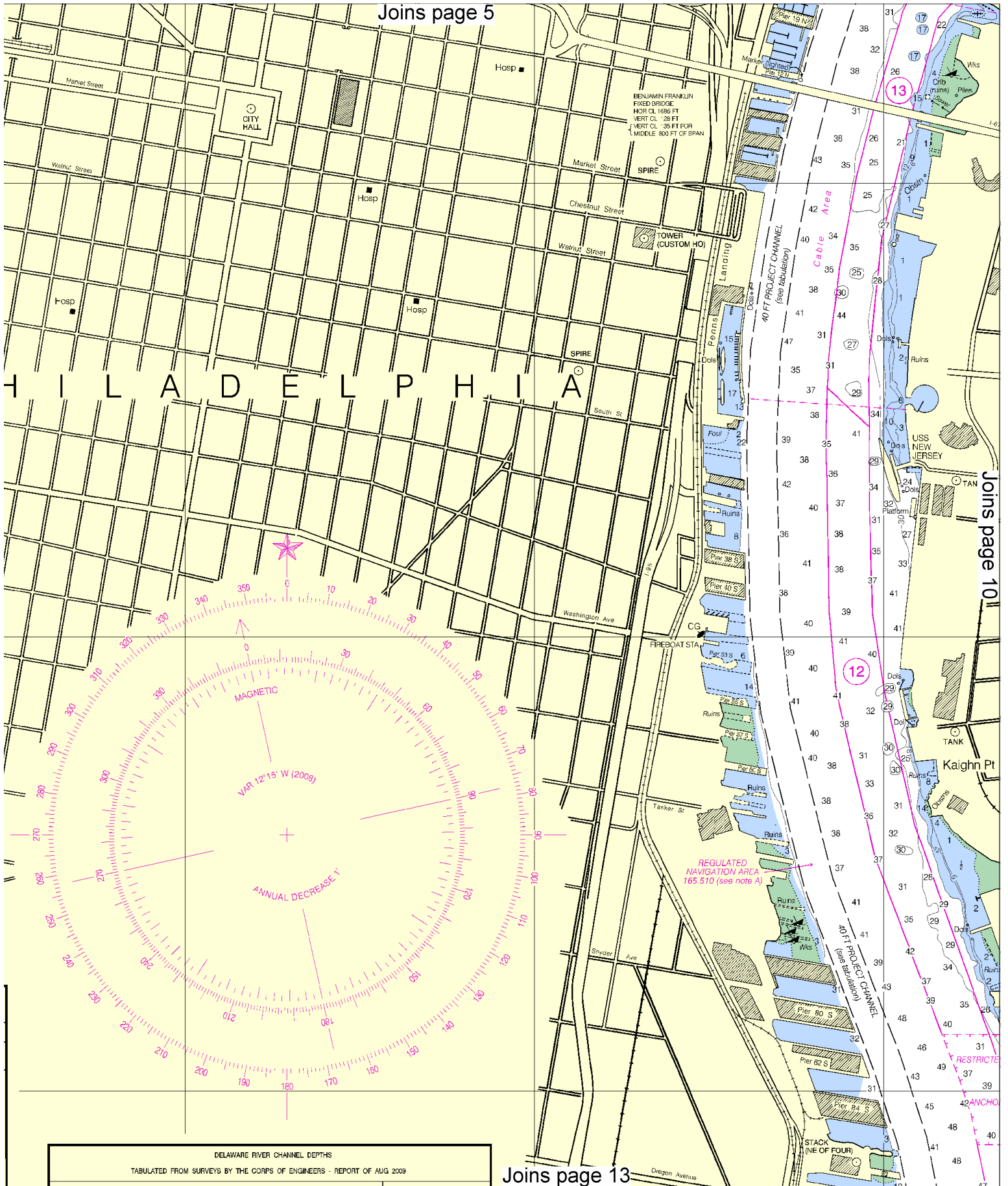
Printed at reduced scale.

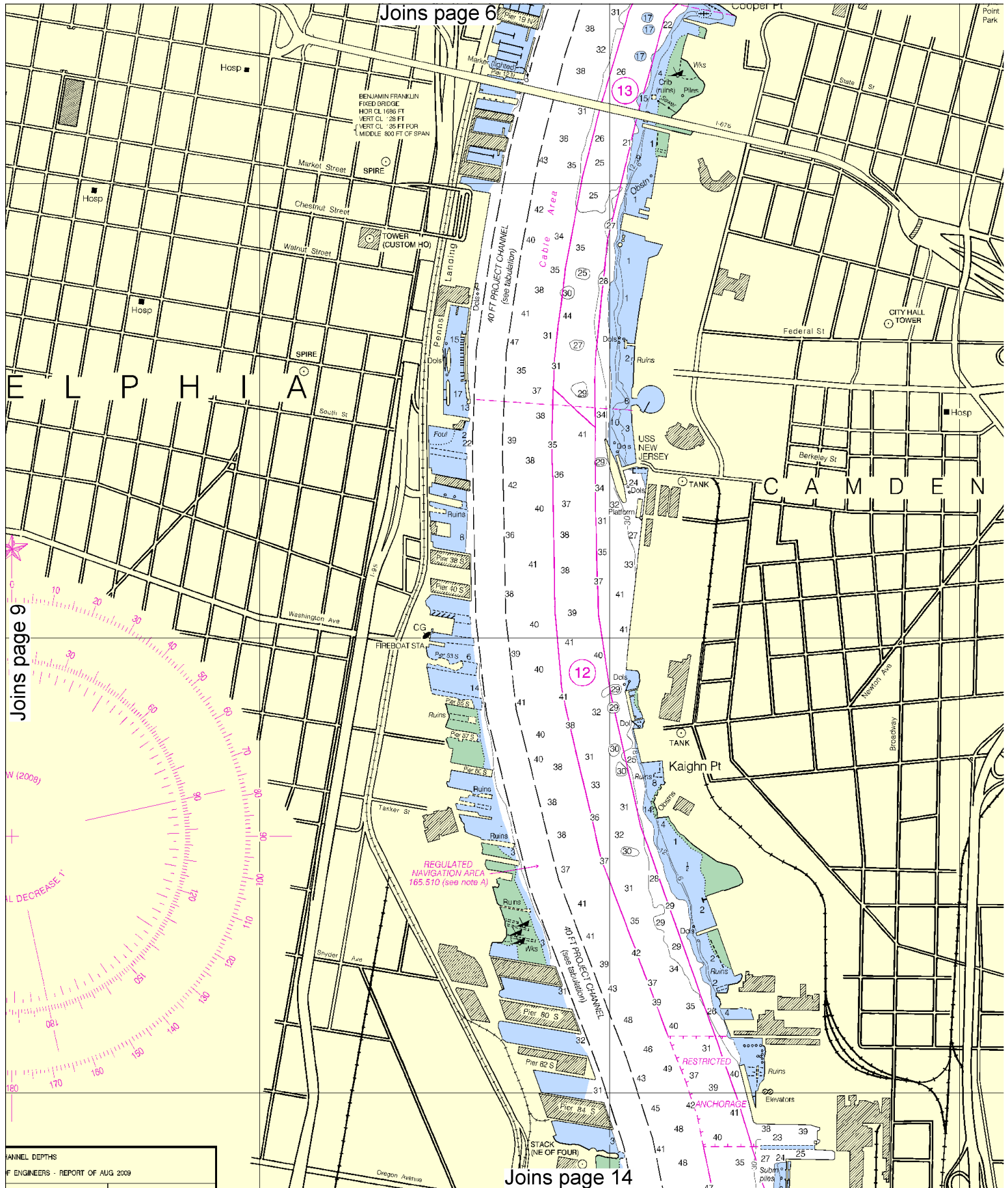
SCALE 1:15,000  
Nautical Miles

See Note on page 5.









10



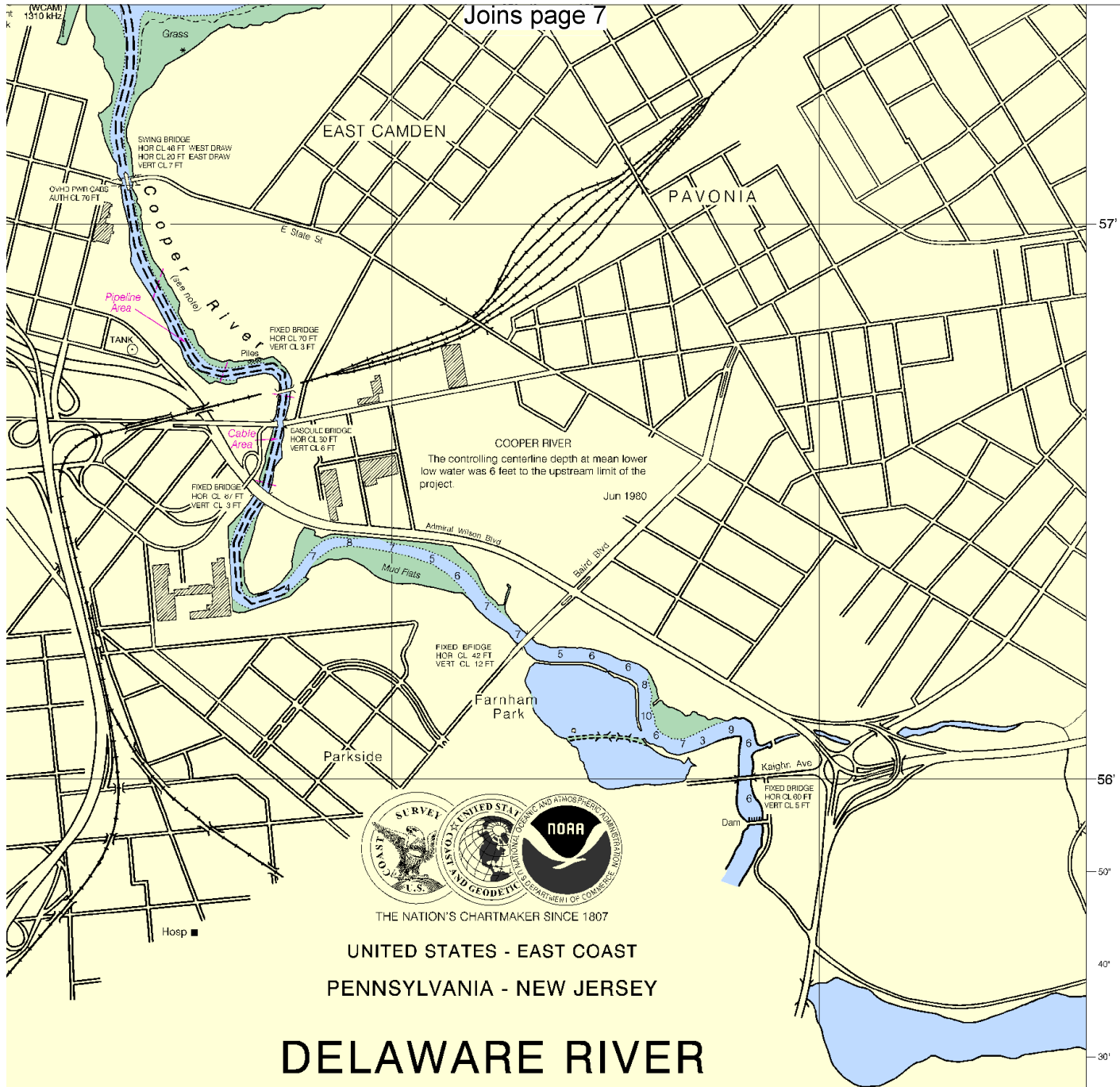
Printed at reduced scale.

SCALE 1:15,000

See Note on page 5.







UNITED STATES - EAST COAST  
PENNSYLVANIA - NEW JERSEY

# DELAWARE RIVER

## PHILADELPHIA AND CAMDEN WATERFRONTS

Mercator Projection  
Scale 1:15,000 at Lat. 39°55'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

### TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Billingsport, NJ	(39°51'N/75°15'W)	feet 6.2	feet 5	feet 3.8
Philadelphia, Municipal Pier 11, PA	(39°57'N/76°08'W)	feet 6.8	feet 5.6	feet 4.4

### CAUTION

#### SUBMARINE PIPELINES AND CABLES

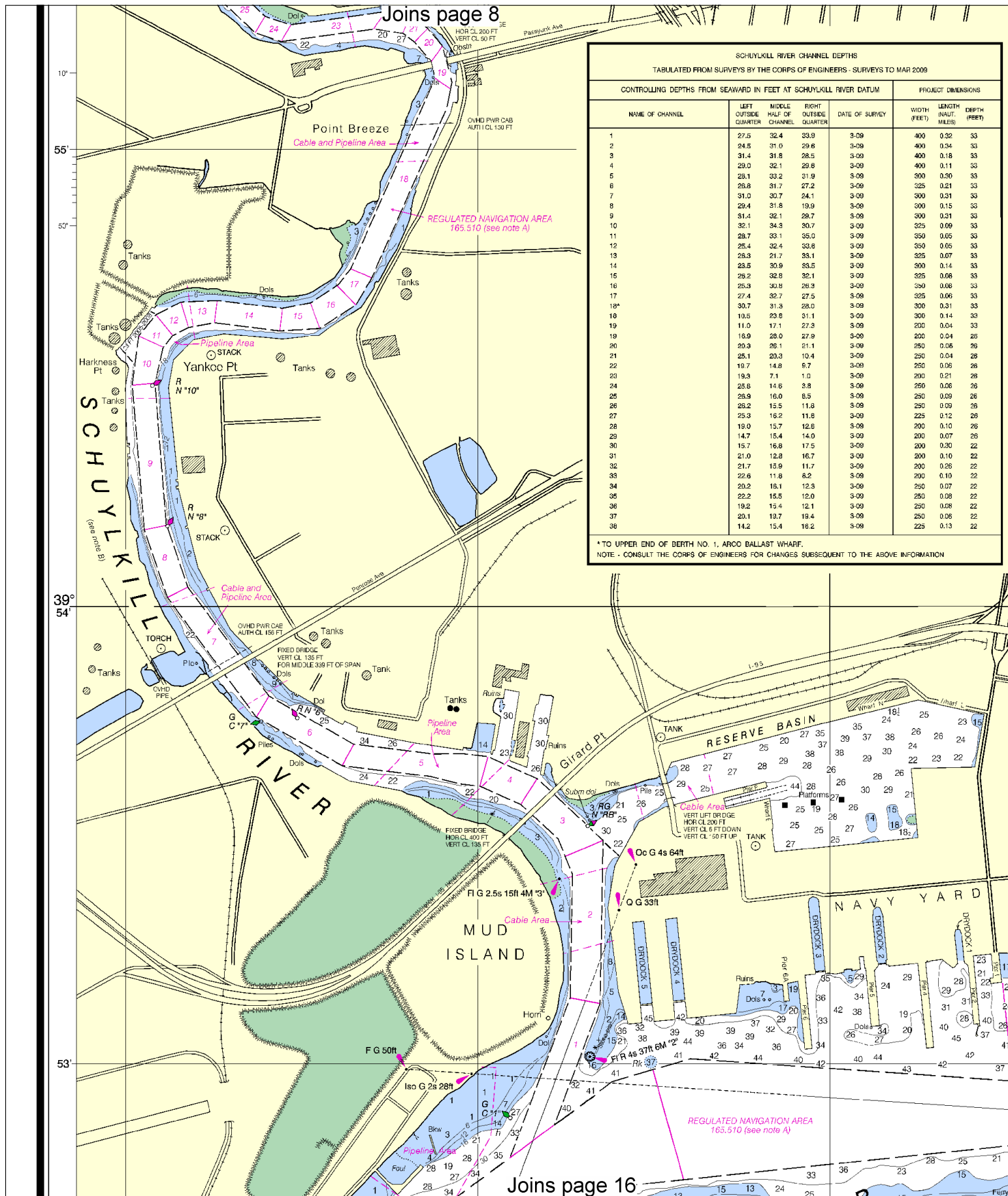
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

— Pipeline Area — Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling. Covered wells may be marked by lighted or

SCHUYLKILL RIVER CHANNEL DEPTHS						
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAR 2009						
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT SCHUYLKILL RIVER DATUM				PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)
1	27.5	32.4	33.9	3-09	400	0.32
2	24.5	31.0	29.6	3-09	400	0.34
3	31.4	31.8	28.5	3-09	400	0.18
4	29.0	32.1	29.6	3-09	400	0.11
5	28.1	33.2	31.9	3-09	300	0.30
6	29.8	31.7	27.2	3-09	325	0.21
7	31.0	30.7	24.1	3-09	300	0.31
8	29.4	31.6	19.9	3-09	300	0.15
9	31.4	32.1	29.7	3-09	300	0.21
10	32.1	34.3	30.7	3-09	325	0.09
11	28.7	33.1	35.0	3-09	350	0.05
12	25.4	32.4	33.6	3-09	350	0.05
13	26.3	31.7	33.1	3-09	325	0.07
14	23.5	30.9	33.5	3-09	300	0.14
15	26.2	32.8	32.1	3-09	325	0.06
16	25.3	30.8	26.3	3-09	350	0.06
17	27.4	32.7	27.5	3-09	325	0.06
18*	30.7	31.3	28.0	3-09	300	0.31
19	10.5	23.8	31.1	3-09	300	0.14
20	20.3	26.1	21.1	3-09	200	0.04
21	16.9	28.0	27.9	3-09	200	0.04
22	20.3	26.1	21.1	3-09	250	0.06
23	25.1	20.3	10.4	3-09	250	0.04
24	19.7	14.8	9.7	3-09	250	0.06
25	19.3	7.1	1.0	3-09	200	0.21
26	25.6	14.6	3.8	3-09	250	0.06
27	26.9	16.0	8.5	3-09	250	0.09
28	26.2	15.5	11.8	3-09	250	0.09
29	25.3	16.2	11.6	3-09	225	0.12
30	19.0	15.7	12.6	3-09	200	0.10
31	14.7	15.4	14.0	3-09	200	0.07
32	15.7	16.8	17.5	3-09	200	0.30
33	21.0	12.8	16.7	3-09	200	0.10
34	21.7	15.9	11.7	3-09	200	0.26
35	22.6	11.8	6.2	3-09	200	0.10
36	20.2	16.1	12.3	3-09	250	0.07
37	22.2	15.5	12.0	3-09	250	0.08
38	19.2	15.4	12.1	3-09	250	0.08
39	20.1	13.7	19.4	3-09	250	0.06
40	14.2	15.4	16.2	3-09	225	0.13

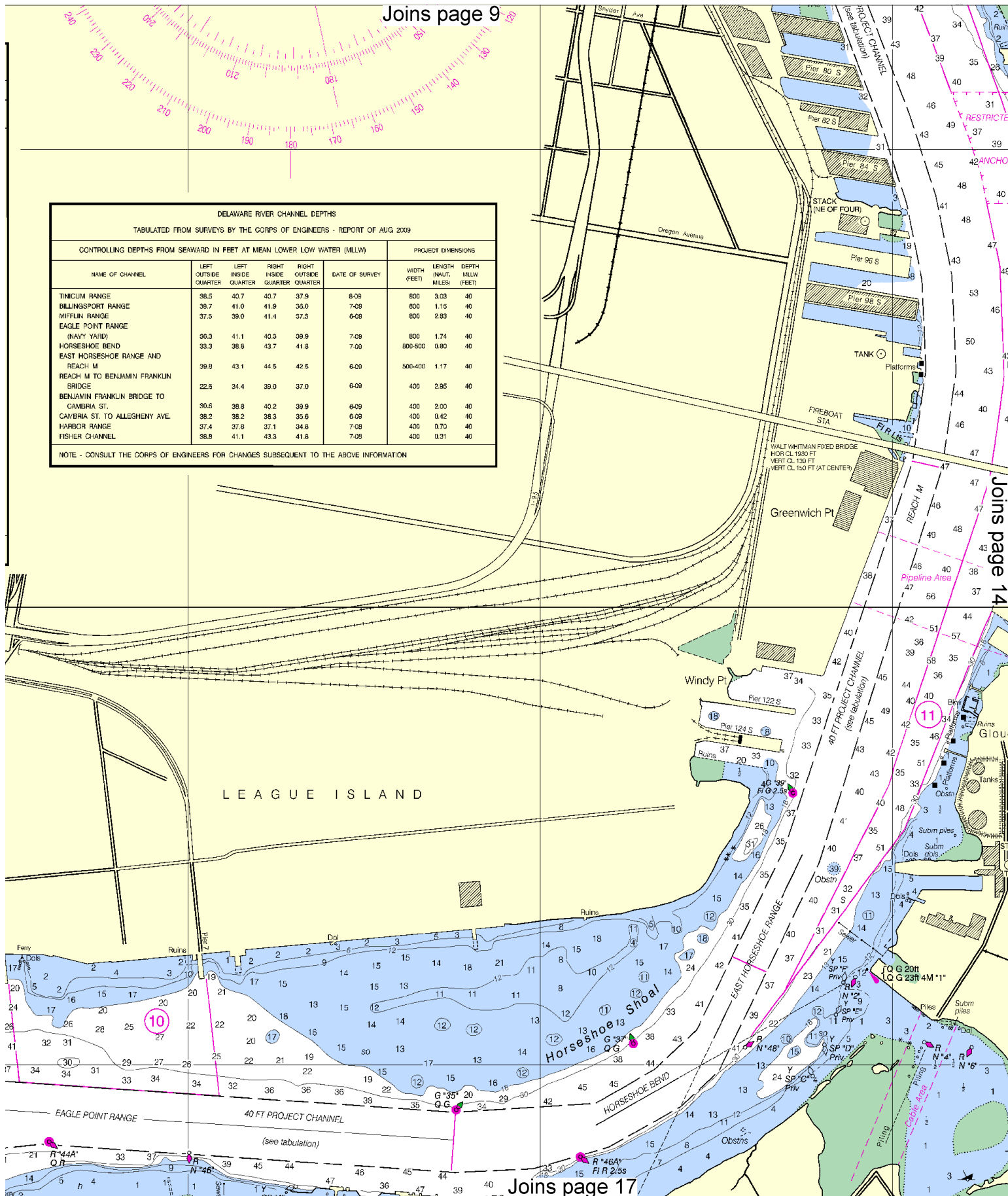
\* TO UPPER END OF BERTH NO. 1, ARCO BALLAST WHARF.  
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

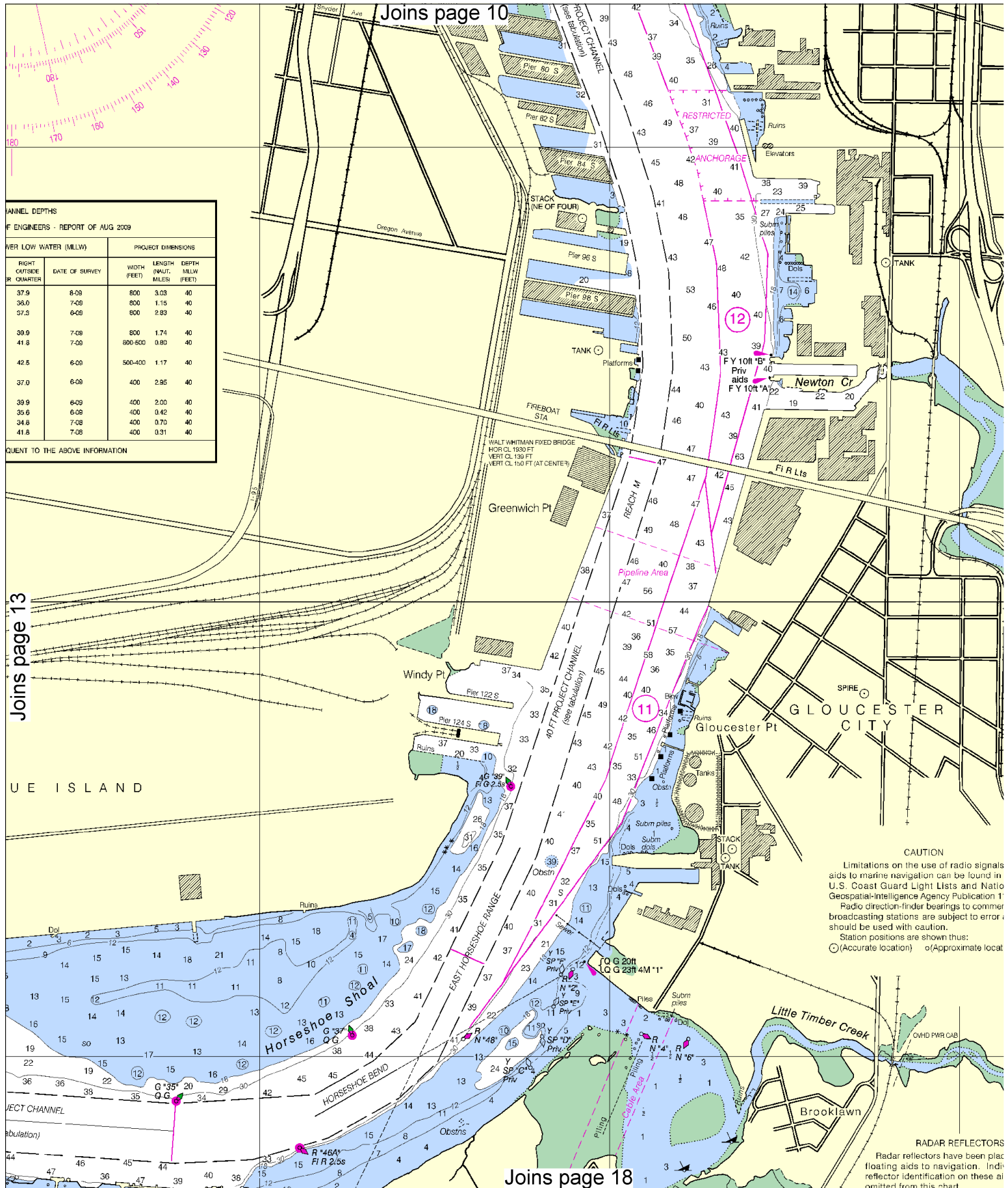




DELAWARE RIVER CHANNEL DEPTHS							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 2009							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES) DEPTH (FEET)
TINICUM RANGE	38.5	40.7	40.7	37.9	8-09	800	3.03 40
BILLINGSPOUT RANGE	39.7	41.0	41.9	36.0	7-08	800	1.15 40
MIFFLIN RANGE	37.5	39.0	41.4	37.3	6-09	800	2.83 40
EAGLE POINT RANGE (NAVY YARD)	36.3	41.1	40.3	39.9	7-08	800	1.74 40
HORSESHOE BEND	33.3	38.8	43.7	41.8	7-08	800-900	0.80 40
EAST HORSESHOE RANGE AND REACH M	39.8	43.1	44.5	42.5	6-09	500-400	1.17 40
REACH M TO BENJAMIN FRANKLIN BRIDGE	22.6	34.4	39.0	37.0	6-08	400	2.95 40
BENJAMIN FRANKLIN BRIDGE TO CAMBRIA ST.	30.6	38.8	40.2	39.9	6-09	400	2.00 40
CAMBRIA ST. TO ALLEGHENY AVE.	38.2	38.2	38.3	35.6	6-08	400	0.42 40
HARBOR RANGE	37.4	37.8	37.1	34.8	7-08	400	0.70 40
FISHER CHANNEL	36.8	41.1	43.3	41.8	7-08	400	0.31 40

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION





CHANNEL DEPTHS

OF ENGINEERS - REPORT OF AUG 2009

AT LOW WATER (MLLW)		PROJECT DIMENSIONS		
RIGHT OF WAY QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
37.9	8-08	800	3.03	40
36.0	7-08	800	1.15	40
37.3	6-08	800	2.83	40
39.9	7-08	800	1.74	40
41.8	7-08	800-500	0.80	40
42.5	6-08	500-400	1.17	40
37.0	6-08	400	2.95	40
39.9	6-08	400	2.00	40
35.6	6-08	400	0.42	40
34.8	7-08	400	0.70	40
41.8	7-08	400	0.31	40

QUENT TO THE ABOVE INFORMATION

Joins page 13

Joins page 10

Joins page 18

**CAUTION**  
 Limitations on the use of radio signals  
 aids to marine navigation can be found in  
 U.S. Coast Guard Light Lists and Natio  
 Geospatial-Intelligence Agency Publication 1  
 Radio direction-finder bearings to commerc  
 broadcasting stations are subject to error  
 should be used with caution.  
 Station positions are shown thus:  
 (Accurate location) (Approximate locat

**RADAR REFLECTORS**  
 Radar reflectors have been plac  
 floating aids to navigation. Indi  
 reflector identification on these al  
 omitted from this chart.

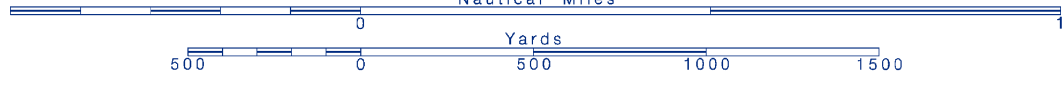
14



Printed at reduced scale.

SCALE 1:15,000  
Nautical Miles

See Note on page 5.



Joins page 11  
Mercator Projection  
Scale 1:15,000 at Lat. 39°55'

North American Datum of 1983  
(World Geodetic System 1984)

SOUNDINGS IN FEET  
AT MEAN LOWER LOW WATER

Additional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

TIDAL INFORMATION

PLACE	NAME	(LAT/LONG)	Height referred to datum of soundings (MLLW)		
			Mean Higher High Water	Mean High Water	Mean Low Water
Billingsport, NJ		(39°51'N/75°15'W)	feet 6.2	feet 5.8	feet 0.2
Philadelphia, Municipal Pier 11, PA		(39°57'N/75°09'W)	feet 6.8	feet 6.4	feet 0.2

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from <http://tidesandcurrents.noaa.gov>. (Dec 2008)

For Symbols and Abbreviations see Chart No. 1

HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, U.S. Coast Guard, and National Geospatial-Intelligence Agency.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important supplemental information.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

ANCHORAGE AREAS

110.157 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

10 NAVAL ANCHORAGE

9 11 12 13

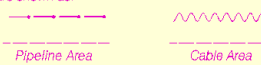
GENERAL ANCHORAGES

14 15 16

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.

Refer to charted regulation section numbers.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.403" northward and 1.350" eastward to agree with this chart.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Philadelphia, PA KIH-26 162.475 MHz

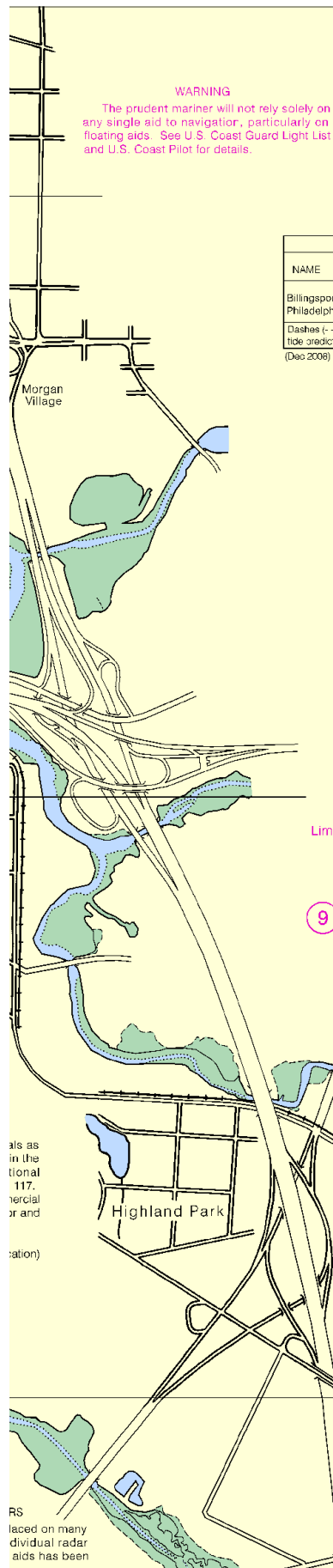
CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

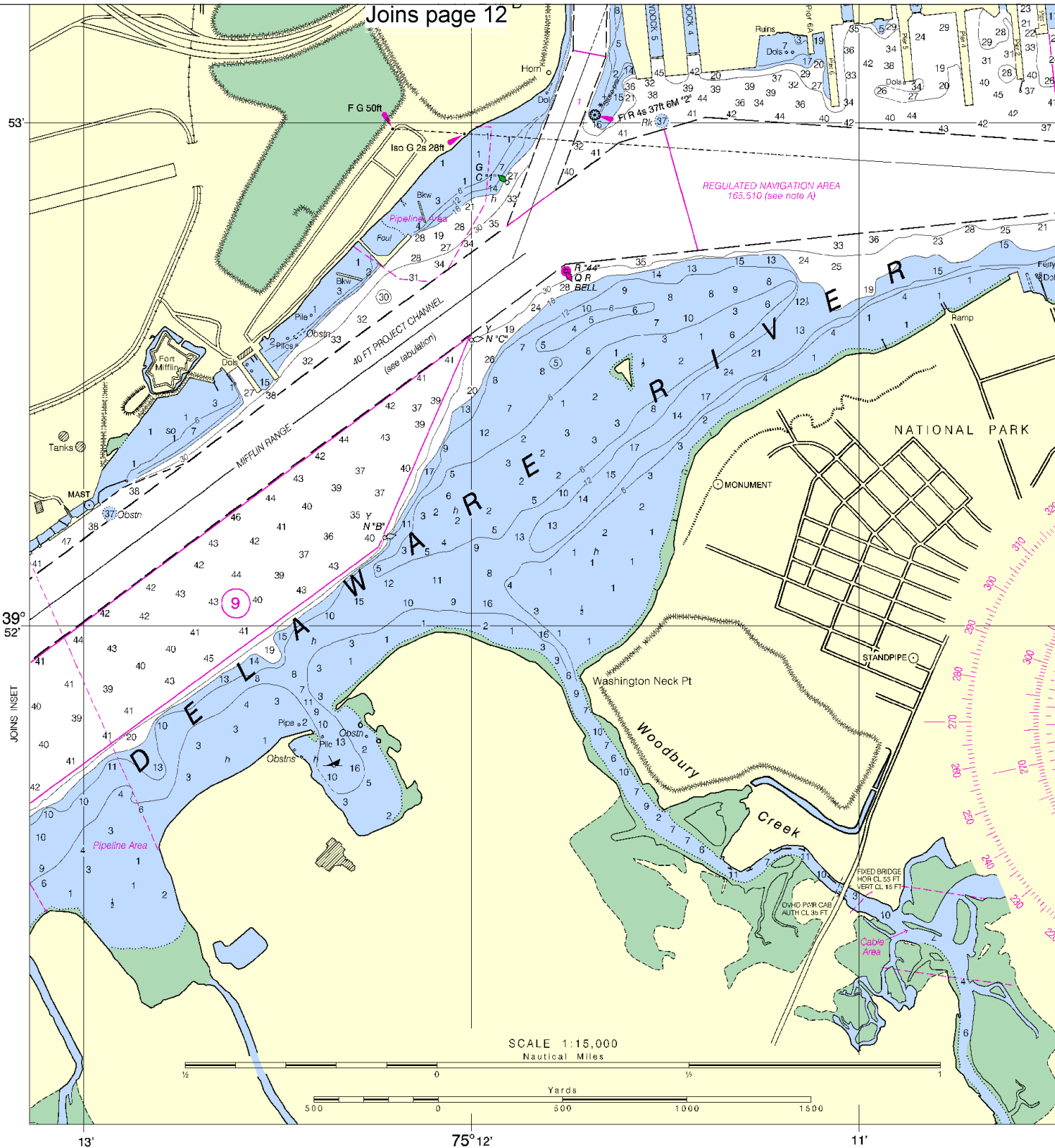
CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:



Joins page 19





52nd Ed., Dec./08 ■ Corrected through NM Dec. 20/08  
Corrected through LNM Dec. 9/08

12313

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov).

SOUNDINGS IN FEET

16



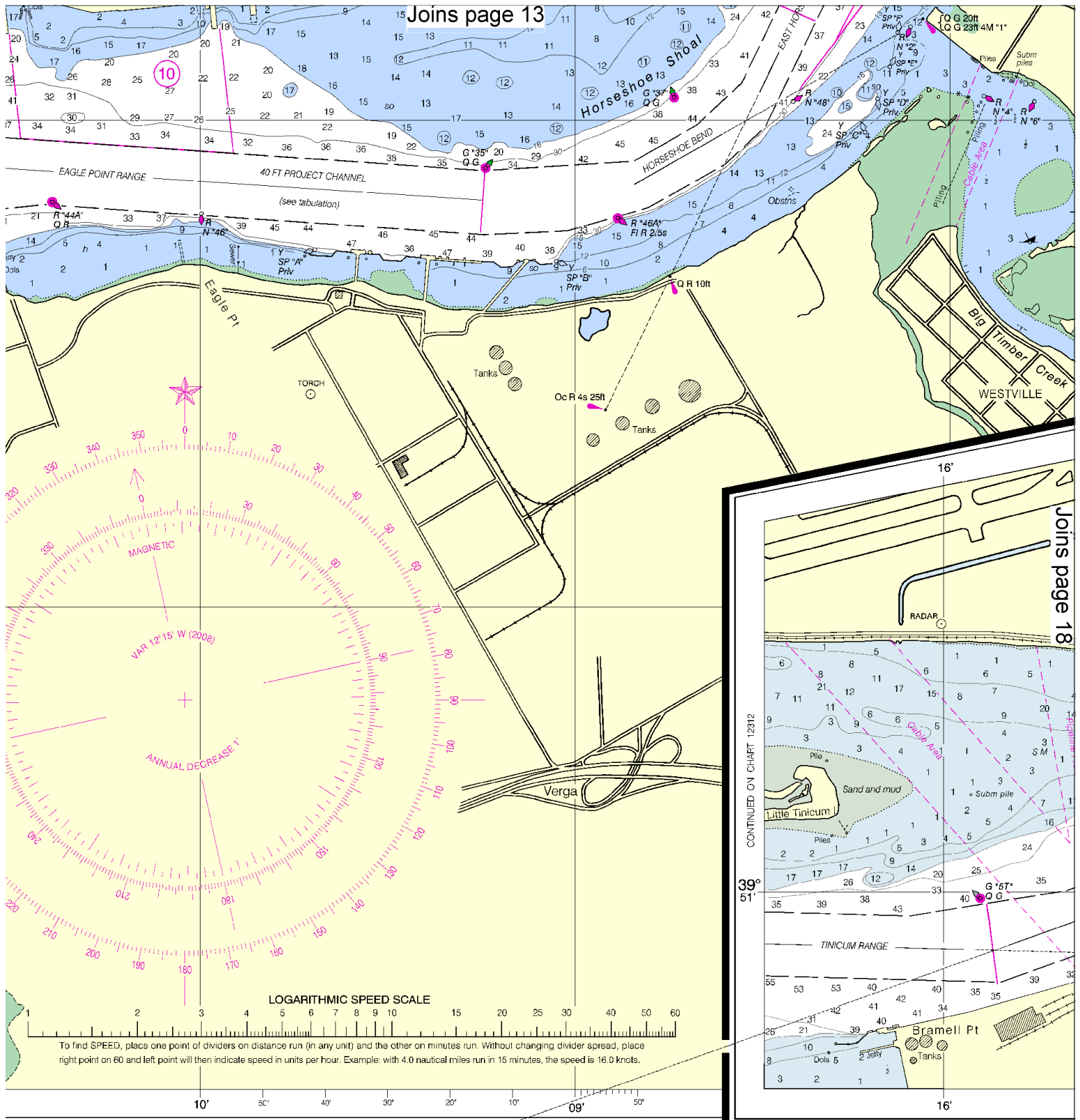
Printed at reduced scale.

SCALE 1:15,000  
Nautical Miles

See Note on page 5.



Joins page 13



{Oc R 4s 43ft (Day)  
{Oc R 4s 45ft (Night)

{Iso R 2s 24ft (Day)  
{Iso R 2s 21ft (Night)

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U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY







## EMERGENCY INFORMATION

### VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16 – Emergency, distress and safety calls** to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 & 78A** – Recreational boat channels.

### Distress Call Procedures

1. Make sure radio is on.
2. Select Channel 16.
3. Press/Hold the transmit button.
4. Clearly say: "MAYDAY, MAYDAY, MAYDAY."
5. Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
6. Release transmit button.
7. Wait for 10 seconds – If no response Repeat MAYDAY Call.

### **HAVE ALL PERSONS PUT ON LIFE JACKETS !!**

**Mobile Phones** – Call 911 for water rescue.

**Coast Guard Philadelphia** – 215-271-4944

**Coast Guard Search & Rescue** – 800-418-7314/410-576-2525

**New Jersey Marine Patrol, Burlington** – 609-387-1221

**Delaware Marine Police** – 302-736-4580

**Philadelphia Marine Police** – 215-271-4971

**NOAA Weather Radio** – 162.400 MHz, 162.425 MHz, 162.450 MHz, 162.475 MHz, 162.500 MHz, 162.525 MHz, 162.550 MHz.

**Getting and Giving Help** – Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



## NOAA CHARTING PUBLICATIONS

**Official NOAA Nautical Charts** – NOAA surveys and charts the national and territorial waters of the U.S., including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Print-on-Demand Nautical Charts** – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at [www.OceanGrafix.com](http://www.OceanGrafix.com).

**Official Electronic Navigational Charts (NOAA ENC<sup>®</sup>)** – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official Raster Navigational Charts (NOAA RNC<sup>™</sup>)** – RNCs are geo-referenced digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official BookletCharts<sup>™</sup>** – BookletCharts<sup>™</sup> are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be downloaded from NOAA for free and printed. The Internet address is [www.NauticalCharts.gov/bookletcharts](http://www.NauticalCharts.gov/bookletcharts).

**Official PocketCharts<sup>™</sup>** – PocketCharts<sup>™</sup> are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side, and safety, boating, and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

**Official U.S. Coast Pilot<sup>®</sup>** – The Coast Pilots are 9 text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov).

**Official On-Line Chart Viewer** – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. The Internet address is [www.NauticalCharts.gov/viewer](http://www.NauticalCharts.gov/viewer).

**Official Nautical Chart Catalogs** – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. Go to <http://NauticalCharts.NOAA.gov/mcd/ccatalogs.htm>.

**Internet Sites:** [www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov), [www.NOAA.gov](http://www.NOAA.gov), [www.TidesandCurrents.NOAA.gov](http://www.TidesandCurrents.NOAA.gov), [www.NOS.NOAA.gov](http://www.NOS.NOAA.gov).